

**WHAT IS CLAIMED IS:**

1. A computer system comprising:  
a semiconductor device connected with a memory network and  
having a data processing function.

5 2. A computer system comprising:  
a CPU;  
a host bus connected with said CPU;  
a core logic connected with said CPU through said host bus  
and including a memory controller;

10 a memory network connected with said memory controller  
included in said core logic;

a semiconductor device connected with said memory network  
and having no data processing function;

15 a semiconductor device connected with said memory network  
and having a data processing function;

a peripheral equipment bus connected with said core logic;  
and

a mass storage device connected with said peripheral  
equipment bus.

20 3. The computer system of Claim 2,  
wherein said semiconductor device having the data  
processing function is formed as a module.

4. A computer system comprising:  
a semiconductor device connected with a memory network,  
25 serving as a memory accessed by a controller through said  
memory network and having a data processing function.

5. A computer system comprising:  
a semiconductor device connected with a memory network and

having a memory emulation function.

6. A data processing method comprising the steps of:

writing data to be processed in a predetermined area within a memory space of a semiconductor device having a data processing function and serving as a memory;

processing said data by said semiconductor device and writing resultant processed data in said predetermined area or another predetermined area within said room; and

obtaining said resultant processed data by reading said predetermined area or said another predetermined area within said room of said semiconductor device after writing said resultant processed data.

7. A data processing method by using a data processor including a controller and a semiconductor device having a data processing function and serving as a memory,

wherein said controller writes specification information of a processing to be executed in a first area within a room of said semiconductor device and writes data to be processed in a second area within said room,

said semiconductor device subsequently processes said data written in said second area on the basis of said processing specification information written in said first area within said room, and writes resultant processed data in a third area within said room, and

said controller reads said resultant processed data from said third area within said room.

8. The data processing method of Claim 7,

wherein said second area and said third area within said

room of said semiconductor device are the same area, and  
said semiconductor device overwrites said resultant  
processed data in said second area where said data has been  
written.

5           9. The data processing method of Claim 7,  
          wherein said controller reads time information required  
for said processing to be executed, and reads said resultant  
processed data written in said third area within said room on  
the basis of said read time information after time  
10           corresponding to said time information elapses.

          10. The data processing method of Claim 9,  
          wherein said semiconductor device is connected with said  
controller through a memory network, and

          said controller stores time information required for each  
15           processing to be executed by said semiconductor device.

          11. The data processing method of Claim 7, 8, 9 or 10,  
          wherein, immediately before executing said processing by  
said semiconductor device having the data processing function,  
information describing said processing to be executed is  
20           dynamically rewritten for executing said processing.

          12. A data processor comprising:

          a controller;

          a semiconductor device connected with said controller  
through a memory network and having a data processing function;

25           and

          informing means for informing said controller that said  
semiconductor device has the data processing function and what  
type of data processing function said semiconductor device

has.

13. A data processing method by using a data processor including a controller, a semiconductor device connected with said controller through a memory network and having a data processing function and a semiconductor device connected with said memory network and having no data processing function,

wherein said controller repeatedly writes identification request information in a predetermined address of said semiconductor devices connected with said memory network, with a semiconductor device identification address successively varied;

said semiconductor device having the data processing function changes the written identification request information in accordance with the data processing function thereof;

said controller repeatedly reads data stored in said predetermined address of said semiconductor devices connected with said memory network, with said semiconductor device identification address successively varied again; and

said controller recognizes that each of said semiconductor device has or does not have a data processing function and what type of data processing function said semiconductor device has.

14. The computer system, the data processor or the data processing method of Claim 1, 2, 3, 4, 5, 10, 12 or 13,

wherein said memory network has a bus network structure.

15. The computer system, the data processor or the data processing method of Claim 1, 2, 3, 4, 5, 10, 12 or 13,

wherein said memory network has a ring network

structure.

16. A semiconductor integrated circuit comprising:

a semiconductor device serving as a memory and having a data processing function; and

5 changing means for dynamically changing a relationship between a logical address within a memory address space allocated to said semiconductor device and an actual physical address.

17. A computer system comprising:

10 plural memory networks; and

a semiconductor device having a data processing function, wherein said semiconductor device is connected with said plural memory networks and has a data exchange function to transfer data between said plural memory networks.

15 18. A computer system comprising:

a semiconductor device connected with a memory network and having a data processing function and an image displaying function.